

IN THE CLAIMS

1. (Currently Amended) A socket connector, comprising:

a socket base having a slot oriented at a first angle with respect to a bottom surface of said socket base; and

a contact having a base beam and a retention portion, said base beam extending along and being held against said bottom surface of said socket base, said retention portion forming an initial angle with said base beam before said contact is assembled with said socket base that differs from said first angle, said socket base receiving said contact with said retention portion held in which projects upward from said bottom surface into said slot such that an angle between said base beam and said retention portion is changed from said initial angle.

2. (Original) The socket connector of claim 1, wherein said retention portion includes retention barbs extending from sides thereof, said retention barbs frictionally engaging said slot to retain said contact within said socket base.

3. (Currently Amended) The socket connector of claim 1, further including a socket cover configured to be engaged by a transport tool, said socket cover being releasably connected to said socket base and covering said contact, said socket cover having a rigid top surface that contains apertures to permit heat transfer to said contact to facilitate soldering of said contact to a circuit board.

4. (Original) The socket connector of claim 1, wherein said retention portion is narrower than said base beam such that said base beam is flexibly formed at one end with said retention portion.

5. (Currently Amended) ~~The socket connector of claim 1,~~ A socket connector, comprising:

a socket base having a slot oriented at a first angle with respect to a bottom surface of said socket base; and

a contact having a base beam and a retention portion, said retention portion forming an initial angle with said base beam before said contact is assembled with said socket base that

differs from said first angle, said socket base receiving said contact with said retention portion held in said slot such that an angle between said base beam and said retention portion is changed from said initial angle, wherein said socket base includes a channel proximate said slot, said channel being defined by an end wall opposite said slot, said contact including a support portion joining said base beam with a contact arm, said support portion of said contact abutting against said end wall of said channel.

6. (Currently Amended) The socket connector of claim 1, further comprising a plurality of said contacts, wherein [[a]] said base beam for each of said contacts abuts against said bottom surface of said socket base to maintain said base beams coplanar with one another in a contact seating plane.

7. (Currently Amended) The socket connector of claim 1, further comprising a plurality of said contacts, wherein [[a]] said base beam for each of said contacts carries a solder ball, said base beams abutting against said bottom surface of said socket base to maintain said solder balls coplanar with one another.

8. (Currently Amended) The socket connector of claim 1, wherein said base beam includes a flexible arm extending downward therefrom and spaced apart from said bottom surface, said flexible arm being configured to receive a solder ball.

9. (Original) The socket connector of claim 1, wherein said base beam and retention portion form said initial angle with one another when said contact is in a relaxed, unbiased condition.

10. (Original) The socket connector of claim 1, wherein when said contact is mounted to said socket base, said angle between said retention portion and base beam increases.

11. (Currently Amended) A socket connector, comprising:
a base having a first co-efficient of thermal expansion; and
a contact having a second co-efficient of thermal expansion differing from said first co-efficient of thermal expansion, said contact including a retention portion formed at one end of said contact and a contact arm formed at an opposite end of said contact, said retention portion being secured to said base to permit relative movement between said contact and base during

temperature changes, wherein said contact includes a base beam joined to said retention portion, said base beam moving relative to said base during temperature changes.

12. (Currently Amended) The socket connector of claim 11, wherein said base includes a slot that is oriented at a first angle with a bottom surface of said base, said ~~contact including a~~ base beam being formed with said retention portion at an initial angle that differs from said first angle, said base carrying said contact with said retention portion held in said slot such that said base beam is biased away from said retention portion by said bottom surface of said base.

13. (Currently Amended) The socket connector of claim 11, further including a transport socket cover releasably connected to said base and covering said contact, said socket cover having a rigid top surface that contains apertures to permit heat transfer to said contact to facilitate soldering of said contact to a circuit board.

14. (Currently Amended) ~~The socket connector of claim 11,~~ A socket connector, comprising:

a base having a first co-efficient of thermal expansion; and
a contact having a second co-efficient of thermal expansion differing from said first co-efficient of thermal expansion, said contact including a retention portion formed at one end of said contact and a contact arm formed at an opposite end of said contact, said retention portion being secured to said base to permit relative movement between said contact and base during temperature changes, wherein said contact includes a base beam that is flexibly joined to said retention portion such that, when said contact expands or contracts due to temperature changes, said base beam flexes with respect to said retention portion.

15. (Original) The socket connector of claim 11, wherein said contact arm is configured to engage a processor and said contact carries a solder ball that is configured to engage a circuit board, said retention portion being remotely located from said contact arm and solder ball to afford said contact arm and solder ball a limited range of motion when said retention portion is retained within said base.

16. (Cancelled)

17. (Original) The socket connector of claim 11, wherein said contact includes an arm extending downward from said contact to receive a solder ball that is configured to be soldered to a circuit board, said arm permitting relative motion between said contact and a circuit board during soldering.

18. (Currently Amended) A socket connector, comprising:

a base carrying a contact, said contact including a contact arm extending beyond a top surface of said base, said contact including a base beam extending along a bottom surface of said base, said base beam being configured to carry a solder ball; and

a socket cover releasably connected to said base proximate said top surface and covering said contact arm, said socket cover having a rigid top surface configured to engage a transport tool, said top surface containing peripheral ~~that contains a~~ heat transfer apertures configured to permit heat to transfer to said contact.

19. (Currently Amended) The socket connector of claim 18, wherein said base includes a channel and a slot proximate each other, said slot being oriented at a first angle with said bottom surface of said base, said contact having a retention portion that forms an initial angle with said base beam that differs from said first angle before said contact is assembled with said base, after assembly said base holding said contact such that said base beam is biased by said bottom surface of said base to change an angle between said base beam and retention portion.

20. (Original) The socket connector of claim 18, wherein said base includes a slot, said contact having a retention portion that is formed with said base beam, said retention portion having retention barbs extending from sides thereof, said retention portion extending through said slot such that said retention barbs engage said base to retain said contact within said base.

21. (New) The socket connector of claim 18, wherein said heat transfer apertures are configured to facilitate a soldering process joining said contact to a circuit board.

22. (New) The socket connector of claim 18, wherein said socket cover, base and contact are configured to be placed together in an oven.

23. (New) The socket connector of claim 1, wherein said contact includes a contact arm that joins a support portion that extends through said socket base to join said base beam at said bottom surface of said socket base when said contact is fully assembled with said socket base.

24. (New) The socket connector of claim 1, wherein said base beam of said contact extends along a contact seating plane that is coplanar with said bottom surface of said socket base.

25. (New) An electrical contact, comprising:
a base beam extending along a contact seating plane, said base beam being configured to be maintained coplanar with, and flush against, a bottom surface of a socket connector;
a retention portion formed with said base beam, said retention portion being configured to be snugly held by the socket connector, said retention portion being configured to be inserted into the socket connector through the bottom surface; and
a contact arm formed with said base beam, said contact arm being configured to project from a top surface of the socket connector.

26. (New) The electrical contact of claim 25, wherein said base beam is configured to be positioned underneath a channel formed through the socket connector, the contact arm extending from the channel.

27. (New) The electrical contact of claim 25, wherein said contact arm is oriented to project at an acute angle with respect to the top surface of the socket connector.

28. (New) The electrical contact of claim 25, wherein said base beam and retention portion are formed at an acute angle with respect to one another such that said retention portion exerts a force upon said base beam to retain said base beam against the bottom surface of the socket connector.

29. (New) The electrical contact of claim 25, further comprising a solder ball carrier beam joined at an intermediate point to said base beam, said carrier beam extending downward from said base beam away from the bottom surface of the socket connector.

30. (New) The electrical contact of claim 25, wherein said retention portion is configured to be held in a slot provided in the socket connector.